Department of Environmental Protection
Bureau of Land & Water Quality June 2003

O&M Newsletter

A monthly newsletter for wastewater discharge licensees, treatment facility operators, and associated persons

DMR-QA Study 23

The EPA has finally sent out the 2003 Discharge Monitoring Report - Quality Assurance Study 23 **(DMR-QA STUDY 23)** Announcement Booklets dated May 6, 2003. Please verify receipt of the DMR-QA package via email as described on Page 3 of the mailing. If that is not possible, use the Address Verification Form on the cover of the booklet as done in the past.

You have probably reviewed the checklist with all the due dates on Page 4 of the booklet by now. You will not be able to comply with the May 23, 2003 deadline for submission of receipt of the package, obviously. The State of Maine realizes that it was not the fault of the permittees. EPA was late mailing out the booklets this year.

You probably will not be able to meet the June 2, 2003 deadline for ordering your test samples unless you have already ordered them from your NIST provider in advance. Again, this will not be a problem as the booklets arrived too late this year. Just go ahead and order the samples as soon as possible. I am hopeful that the analytical work will be completed in plenty of time to comply with your provider's reporting deadline. Reporting should be completed prior to August 29, 2003.

If you have further questions, please call me at 287-4869 or email me at: ken.jones@maine.gov.

Ken Jones

For Practice

1. The Mean Cell Residence Time (MCRT) is:
   a. The length of time an average microbe spends in the aeration basin.
   b. The length of time an average microbe spends in the secondary clarifier and return sludge line.
   c. The length of time an average microbe spends in the treatment system before being wasted or lost in the effluent.
   d. The ratio of the solids in the aeration basin to the solids in the primary effluent.

2. The term most commonly used for untreated wastewater is
   a. Aerobic
   b. Septic
   c. Ground
   d. Raw

3. The letters MSDS stand for:
   a. Maine Safety Determination Specifications
   b. Material Safety Data Sheet
   c. Materials Source and Delivery Sheet
   d. Management Specifications for Determining Safety

4. If a chemical feed pump will supply a maximum of 3,500 pounds per day, what is the maximum feed rate in gallons per minute?
   a. 0.82 gpm
   b. 0.44 gpm
   c. 0.29 gpm
   d. 0.18 gpm

Spring Certification Exam

The answer sheets for the Spring 2003 Operator Certification Exam have been sent to ABC for correction. As usual, we'll get the results out to you as soon as possible after we receive them (but you should still plan on 4 to 6 weeks before we get the results). Good luck to all that took the test!

Approved Training

NOTE: The training calendars for JETCC and MRWA have not been finalized for the Fall training session. The calendars should be ready for the next issue of the *O&M News.*

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December 2&3, 2003 in Freeport, ME - MRWA Annual Conference – Sponsored by MWRA, (207) 729-6569 – Approved for TBA hours.

Answers to *For Practice:*

1. c. The Mean Cell Residence Time is the amount of time a typical biomass cell spends in the treatment system, including the aeration basins, clarifiers and return lines, before it is removed by wasting or loss in the effluent.

2. d. Untreated wastewater is called Raw Wastewater.

3. b. MSDS stands for Material Safety Data Sheet

4. c. The pump delivers 3,500 pounds/day which is 145.83 pounds/hour or 2.43 pounds/minute. 1 gallon weighs 8.34 pounds so the feed rate is 2.43/8.34 = 0.29 gallons/minute.

BOD & METABOLISM / DENITRIFICATION

Friday June 27, 2003, 8:30 AM – 4:00 PM
Registration 8:00 – 8:30 AM
DES Auditorium, Concord, NH

BOD & Metabolism This 3-hour session reviews the different types of BOD that enter the activated sludge process. The removal, degradation, transformation and loss of BOD are discussed. The degradation of BOD to non-polluting wastes and less polluting wastes and transformation of BOD (sludge production) are reviewed through aerobic, anoxic, and anaerobic respiration. The production of malodors through anaerobic respiration is presented. Operational measures for monitoring BOD degradation and sludge production as well as process control measures to reduce sludge production are presented.

Denitrification This 3-hour session reviews the biological principles of denitrification and their application for process control, troubleshooting, permit compliance, and cost-effective operation. Operational conditions affecting denitrification will be presented. This session will focus upon the benefits of desired denitrification and the unfortunate consequences of undesired denitrification. Topics include the sources of nitrite and nitrate ions, the anoxic environment, comparison of aerobic and anoxic respiration, monitoring denitrification, and controlling undesired denitrification.

Instructor Michael H. Gerardi, M.S., biology, is responsible for the development and presentation of wastewater biology courses for Penn State University.

Sponsor New Hampshire Water Pollution Control Association. Call 271-2940 for more info.

BOD & METABOLISM / DENITRIFICATION
Registration deadline is June 13, 2003

COST: ? $60 per registrant / NHWPCA members
? $85 per registrant / non members

Name _____

Facility or firm_____

Address_____

City_____State_____Zip_____Phone_____

? Payment enclosed or P.O. #_____

MAKE CHECK PAYABLE TO: NHWPCA

Mail completed registration with payment or P.O. # to:
Brian Hilliard, NHWPCA
P.O. Box 95, Concord, NH 03302-0095